

REMARKS

Applicants respectfully request reconsideration of the present application in view of the reasons that follow. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Claims 1-30 are now pending in this application.

In paragraph 2 of the Office Action, the Examiner rejected Claims 12, 13, 17-21, 23, 25, 27, 28 and 30 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,333,617 to Hafner (hereinafter Hafner) in view of U.S. Patent No. 4,223,679 to Schulman et al. (hereinafter Schulman et al.) and further in view of U.S. Patent No. 6,121,940 to Skahill et al. (hereinafter Skahill et al.) The Examiner stated that Schulman et al. teach “using an impedance reflecting circuit (14) for the purpose of detecting the impedance of the antenna/inductor in the impedance reflecting circuit a modulating the frequency of the signal based on the impedance found between the implanted device (1) and the external programmer (12).” Applicants respectfully traverse the rejection.

Schulman et al. do not teach using an impedance reflecting circuit to detect the impedance in a reflecting circuit. Schulman et al., in the sections cited by the Examiner, teach that “the impedance of the impedance reflecting circuit 14 which is magnetically coupled as schematically represented at 24 to a programmer head 26 which in turn is coupled to an oscillator 28. The output of the oscillator 28 is determined by the combined impedance of the programmer head 26 and the impedance reflecting circuit 14 as coupled to the programmer head.” Applicants submit that combining the impedance of a reflecting circuit with that of a programmer head to vary the output of an oscillator is not an impedance detector and further is not a dynamic impedance matching circuit.

Claim 12 recites a “telemetry unit including a circuit that monitors an impedance of the antenna, and adjusts a dynamic impedance matching circuit ...” Claim 27 recites “automatically adjusting a dynamic impedance matching circuit coupled to the antenna to compensate for changes in an impedance of the antenna.” There is no teaching or suggestion

in Schulman et al. that the impedance is matched. Hafner does not cure the deficiencies noted above with reference to Schulman et al. Although Skahill et al. does include an impedance matching circuit, it does not teach or suggest using an impedance detector to monitor the impedance of the antenna. Reconsideration and withdrawal of the rejection of independent Claims 12 and 27 is respectfully requested.

Claims 13, 17-21, 23 and 25 depend from Claim 12 and include all of the limitations thereof. Claims 28 and 30 depend from Claim 27 and include all of the limitations thereof. Accordingly, these claims are allowable for at least the same reasons as independent Claims 12 and 27. Reconsideration and withdrawal of the rejection of Claims 13, 17-21, 23, 25, 28 and 30 is respectfully requested.

In paragraph 3 of the Office Action, the Examiner rejected Claims 1-7, 9 and 26 under 35 U.S.C. §103(a) as being unpatentable over Hafner in view of Schulman et al. in further view of U.S. Patent No. 3,631,851 to Heson (hereinafter Heson). The Examiner relies on Schulman et al. to show an impedance detector and dynamic impedance matching circuit as described above. Heson does not cure the deficiencies noted above with reference to Schulman et al., Hafner, and Skahill et al. because it does not disclose an impedance detector and dynamic impedance matching circuit. Accordingly, Claim 1 is allowable for at least the reasons discussed above with reference to Claims 12 and 27. Reconsideration and withdrawal of the rejection of Claim 1 is respectfully requested.

Claims 2-7, and 9 depend from Claim 1 and include all of the limitations thereof. Claim 26 depends from Claim 12 and include all of the limitations thereof. Accordingly, these claims are allowable for at least the same reasons as independent Claims 1 and 12. Reconsideration and withdrawal of the rejection of Claims 2-7, 9 and 26 is respectfully requested.

In paragraph 4 of the Office Action, the Examiner rejected Claims 8 and 10 under 35 U.S.C. §103(a) as being unpatentable over Hafner in view of Schulman et al. in view of Skahill et al. in further view of Heson and further in view of U.S. Patent No. 5,748,103 to Flach et al. (hereinafter Flach et al.) The Examiner relies on Schulman et al. to show an

impedance detector and dynamic impedance matching circuit as described above. Flach et al. does not cure the deficiencies noted above with reference to Hafner, Schulman et al., Skahill et al., and Hesen because it does not disclose an impedance detector and dynamic impedance matching circuit. Accordingly, Claims 8 and 10 are allowable for at least the reasons discussed above with reference to Claim 1. Reconsideration and withdrawal of the rejection of Claims 8, and 10 is respectfully requested.

In paragraph 5 of the Office Action, the Examiner rejected Claims 22 and 24 under 35 U.S.C. §103(a) as being unpatentable over Hafner in view of Schulman et al. in view of Skahill et al. and further in view of Flach et al. The Examiner relies on Schulman et al. to show an impedance detector and dynamic impedance matching circuit as described above. Flach et al. does not cure the deficiencies noted above with reference to Hafner, Schulman et al., Skahill et al., because it does not disclose an impedance detector and dynamic impedance matching circuit. Accordingly, Claims 22 and 24 are allowable for at least the reasons discussed above with reference to Claim 12. Reconsideration and withdrawal of the rejection of Claims 22 and 24 is respectfully requested.

In paragraph 6 of the Office Action, the Examiner rejected Claims 14 and 15 under 35 U.S.C. §103(a) as being unpatentable over Hafner in view of Schulman et al. in view of Skahill et al. in further view of U.S. Patent No. 5,694,940 to Unger et al. (hereinafter Unger et al.). The Examiner relies on Schulman et al. to show an impedance detector and dynamic impedance matching circuit as described above. Unger et al. does not cure the deficiencies noted above with reference to Hafner, Schulman et al., and Skahill et al. because it does not disclose an impedance detector and dynamic impedance matching circuit. Accordingly, Claims 14 and 15 are allowable for at least the reasons discussed above with reference to Claim 12. Reconsideration and withdrawal of the rejection of Claims 14 and 15 is respectfully requested.

Applicants believe that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-2401. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-2401. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-2401.

Respectfully submitted,

Date 3/18/04

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